

rays most copiously to the Eye, and thereby strike the senses with the deepest violet Colour in that region. And in like manner the Angle SFO being equal to the Angle POF, or 42 deg. 2 min. shall be the greatest in which the least refrangible rays after one reflexion can emerge out of the Drops, and therefore those rays shall come most copiously to the Eye from the Drops in the line OF, and strike the senses with the deepest red Colour in that region. And by the same argument, the rays which have intermediate degrees of refrangibility shall come most copiously from Drops between E and F, and strike the senses with the intermediate Colours in the order which their degrees of refrangibility require, that is, in the progress from E to F, or from the inside of the Bow to the outside in this order, violet, indico, blue, green, yellow, orange, red. But the violet, by the mixture of the white Light of the Clouds, will appear faint and incline to purple.

Again, the Angle SGO being equal to Angle POG, or 50 gr. 51 min. shall be the least Angle in which the least refrangible rays can after two reflexions emerge out of the Drops, and therefore the least refrangible rays shall come most copiously to the Eye from the Drops in the line OG, and strike the sense with the deepest red in that region. And the Angle SHO being equal to the Angle POH or 54 gr. 7 min. shall be the least Angle in which the most refrangible rays after two reflexions can emerge out of the Drops, and therefore those rays shall come most copiously to the Eye from the Drops in the line OH, and strike the senses with the deepest violet in that region. And by the same argument, the Drops in the regions between G and H shall strike the sense with the

the intermediate Colours in the order which their degrees of refrangibility require, that is, in the progress from G to H, or from the inside of the Bow to the outside in this order, red, orange, yellow, green, blue, indico, violet. And since these four lines OE, OF, OG, OH, may be situated any where in the above-mentioned conical superficies, what is said of the Drops and Colours in these lines is to be understood of the Drops and Colours every where in those superficies.

Thus shall there be made two Bows of Colours, an interior and stronger, by one reflexion in the Drops, and an exterior and fainter by two; for the Light becomes fainter by every reflexion. And their Colours shall ly in a contrary order to one another, the red of both Bows bordering upon the space GF which is between the Bows. The breadth of the interior Bow EOF measured cross the Colours shall be 1 deg. 45 min. and the breadth of the exterior GOH shall be 3 deg. 10 min. and the distance between them GOF shall be 8 gr. 55 min. the greatest Semi-diameter of the innermost, that is, the Angle POF being 42 gr. 2 min. and the least Semi-diameter of the outermost POG, being 50 gr. 57 min. These are the measures of the Bows, as they would be were the Sun but a point; for by the breadth of his Body the breadth of the Bows will be increased and their distance decreased by half a degree, and so the breadth of the interior Iris will be 2 deg. 15 min. that of the exterior 3 deg. 40 min. their distance 8 deg. 25 min. the greatest Semi-diameter of the interior Bow 42 deg. 17 min. and the least of the exterior 50 deg. 42 min. And such are the dimensions of the Bows in the Heavens found to be very nearly,

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